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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,173	07/22/2003	Michael Baumann	60,126-226	6855

27305 7590 02/13/2007  
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EXAMINER
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HANAN, DEVIN J

ART UNIT	PAPER NUMBER
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3745

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/13/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/624,173

Applicant(s)

BAUMANN ET AL.

Examiner

Devin Hanan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1: ☒ Certified copies of the priority documents have been received.
- 2: ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
- 3: ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/7/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

Claim 1 is objected to because of the following informalities: There appears to be a typo in line 4, the "a" second occurrence is not needed. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by O'Connor et al. (U.S. Patent 4,022,423).

O'Connor et al. disclose a turbine motor with a housing;  
a drive shaft (fig. 1, 21) of said motor having a bearing unit (23);  
a turbine wheel (17) drivably arranged upon said drive shaft rotatably disposed within a drive channel (16) of said housing (11) and having blade elements disposed upon the carrier surface;  
an inlet (12) for providing a driving gas through said housing and into driving contact with said blade elements (19) of said turbine wheel; and

a shielding element (20) positioned adjacent said blade elements thereby limiting said drive channel.

Regarding claim 2, O'Connor et al. disclose the turbine wheel is formed by two disk elements lying in an opposed relationship in an axial direction and being limited by said drive channel (disc elements are 20 and 18).

Regarding claim 3, O'Connor et al. disclose the shielding element comprises a disk operably connected (20 is connected to 19) to one of said drive shaft and said turbine wheel thereby rotating with said turbine wheel.

Regarding claim 4, O'Connor et al. disclose the shielding element is fixedly attached to the turbine blades (col. 2 lines 18-27).

Regarding claim 6, O'Connor et al. disclose the shielding element defines at least one outlet for driving gas (13).

Regarding claim 7, O'Connor et al. disclose an inlet for driving gas is positioned in said housing spaced from said drive shaft in a radial direction (12).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Connor as applied to claim 1 and further in view of an engineering expedient. O'Connor

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teaches the use of a shielding plate attached to the turbine blades, but does not disclose how it is attached.

It is common practice in the art of turbines to join two parts by welding. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of O'Connor by welding the shielding plate to the blades as an engineering expedient for the purpose of rigidly fixing the two parts together.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Connor et al. in view of Bailey (U.S. Patent 4,355,949).

O'Connor et al. disclose all of the claimed limitations as discussed in claim 6 above, but does not disclose the opening defined by said shielding element includes a cross sectional area greater than a smallest cross sectional area of the inlet.

However, Bailey teaches of an inlet with a smaller cross section for the purpose of reliably maintaining turbine wheel speed (col. 3 lines 52-59).

Since O'Connor and Bailey both have turbine wheels with inlets, the purpose disclosed by Bailey would have been recognized in the pertinent art of O'Connor. It would have been obvious at the time the invention was made to one having ordinary skill in the art to add the inlet of Bailey to the turbine of O'Connor for the purpose of reliably maintaining turbine wheel speed (col. 3 lines 52-59).

Regarding claim 9, O'Connor discloses all of the claimed limitations as discussed in claim 6 above, but does not disclose a nozzle with a cross section expanding after narrowing adjacent said opening leading into the drive channel.

However, Bailey teaches of an inlet with a cross section expanding after narrowing for the purpose of reliably maintaining turbine wheel speed (col. 3 lines 52-59).

Since O'Connor and Bailey both have turbine wheels with inlets, the purpose disclosed by Bailey would have been recognized in the pertinent art of O'Connor. It would have been obvious at the time the invention was made to one having ordinary skill in the art to add the inlet of Bailey to the turbine of O'Connor for the purpose of reliably maintaining turbine wheel speed (col. 3 lines 52-59).


### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devin Hanan whose telephone number is 571-272-6089. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on 571-272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Devin Hanan  
Patent Examiner  
Art Unit 3745

  
EDWARD K. LOOK  
SUPERVISORY PATENT EXAMINER  
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2/5/07